COMPREHENSIVE EMISSION INVENTORY GUIDELINES

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COMPREHENSIVE EMISSION INVENTORY GUIDELINES FOR THE MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT

PURPOSE

This guideline establishes a uniform method for preparing and submitting a Comprehensive Emission Inventory Plan (CEIP) and Comprehensive Emission Inventory Report (CEIR) for all existing, new, or modified stationary sources of air pollution within the Mojave Desert Air Quality Management District (District). The CEIP and CEIR, which are prepared pursuant to these guidelines, should be able to satisfy all of the Federal, State, and District requirements for air emission inventories.

FEDERAL AND STATE REQUIREMENTS

Several Sections of the Federal Clean Air Act (FCAA) require the maintenance and use of emission inventory data for a variety of purposes. To improve and simplify emission reporting the USEPA has established new requirements for the reporting of point, area and mobile sources emissions which is found in the Consolidated Emissions Reporting Rule, 40 CFR 51 Subpart A. (67 FR 39611, 6/10/2002).

The California Clean Air Act (CCAA, Health & Safety Code §§39000 et seq.) requires the collection and maintenance of several different emissions inventories. These are: a criteria emission inventory (Health & Safety Code § 39607) and a toxic emission inventory (Health & Safety Code § 44340). In addition, specified sources of air pollutants are required to submit a Toxic Emission Inventory Plan (TEIP) and Toxic Emission Inventory Report (TEIR) (Health & Safety Code §§44341, 44342).

APPLICABLITY

All existing stationary sources of air pollutants are required to periodically prepare and submit a CEIP and CEIR on a schedule prescribed by the District. All proposed new stationary sources of air pollutants are required to submit a CEIP and CEIR for the proposed new emission unit(s) in conjunction with their application for permit(s) pursuant to the provisions of Districts' Permit and New Source Review Rules and Regulations. Existing stationary facilities or sources of air pollutants are required to submit a CEIP and CEIR for proposed new emission unit(s) and update their current CEIP and CEIR for modifications to existing emission unit(s) pursuant to the provisions of Districts' Permit and New Source Review Rules and Regulations.

DEFINITIONS

For purposes of these Guidelines the definitions contained in District Rules 1401 and 1301 control unless otherwise defined herein.

Existing Stationary Source - Any Facility or Emissions Unit which:

(a) Is required to have a Permit to Operate (PTO) pursuant to the provisions of Districts' Rules and Regulations

(b) Is an Emissions Unit or process type which is listed in Appendix "E" of *Emission Inventory Criteria and Guidelines for the Air Toxics 'Hot spots' Program* as adopted by reference in 17 California Code of Regulations §93300.5

(c) Is subject to an Airborne Toxic Control Measure (ATCM)

(d) Is subject to a New Source Performance Standard (NSPS) *[See 42 U.S.C. §7411 & 40 CFR 60]*

(e) Is subject to a National Emission Standard for Hazardous Air Pollutant (NESHAP) Standard *[See 42 U.S.C. §7412 & 40 CFR 61]*

(f) Is subject to a Maximum Achievable Control Technology (MACT) Standard *[See 42 U.S.C. §7412 & 40 CFR 63]*

PROCEDURE

General Requirements

The comprehensive emission inventory includes the release of all substances (criteria pollutants, their precursors, and toxic substances) emitted into the ambient air. Sources of emissions are anthropogenic and non-anthropogenic sources. Anthropogenic (man-made) sources include stationary sources (point area, volume, pit, and etc.), mobile (on and off road), consumer activities, fugitive dust from disturbed land areas, prescribed burns, structural fires, etc. Non-anthropogenic (natural occurrences) sources include wind blown dust, volcanoes, earthquakes, fires, etc.

The CEIP and CEIR are to include all permitted sources (equipment) and their fugitive emissions and un-permitted sources and their fugitive emissions. Except for pollution control equipment that is attached to other permitted sources. Fugitive sources include, but are not limited to, equipment leaks, roadways (paved and unpaved); stockpiles; wind erosion of exposed area; quarry activities (drilling, blasting, material handling, storage, etc.); exhaust from onsite mobile equipment; etc.

Existing stationary sources that emit more than 10 tons per year of a criteria pollutant or their precursors are required to prepare and submit (update) a CEIP and CEIR annually for criteria pollutant emissions and every three (3) years for toxic substances. Other sources are required to prepare and submit a CEIP and CEIR every three (3) years. Please refer to the Three Year Cycle section to view the date a facility has to submit their inventory. Retail gasoline dispensing facilities and dry cleaners are required to complete and submit an annually survey form(s).

Criteria Pollutants

The following criteria pollutants are to be included in the CEIP and CEIR:

Ammonia – NH_4
Carbon Monoxide - CO
Lead and Lead Compounds - Pb
Nitrogen Oxides - NO_X
Particulate Matter less than 10 microns – PM_{10}
Particulate Matter less than 2.5 microns – $PM_{2.5}$
Reactive Organic Gases - ROG
Sulfur Oxides - SO_X
Total Organic Gases - TOG
Total Suspended Particulates - TSP
Volatile Organic Compounds – VOC

Toxic Substances

The toxic substances which are to be included in the CEIP and CEIR are listed in the following:

(a) Appendix 'A', *Emission Inventory Criteria and Guidelines for the Air Toxics 'Hot spots' Program* (CARB); consisting of;

1. Appendix A-I — Substances for which emissions must be quantified,
2. Appendix A-II — Substances for which production, use or otherwise present must be reported,
3. Appendix A-III — Substances for which emission must be quantified if manufactured by the facility, and

(b) 42 U.S.C. § 7412(b) "List of Pollutants (Federal Clean Air Act §112(b) "List of Pollutants").

Copies of these lists are available at the CARB and/or USEPA websites (See "References") or upon request from the District.

In addition to the toxic substances listed in the above appendices, the USEPA is considering including additional toxic substances to the CEIR. For your convenience the district has attached a copy of the proposed updated toxic substance list, which can be found in Appendix "F".

Preparing the Comprehensive Emission Inventory Plan (CEIP)

The CEIP is a plan on how the CEIR will be prepared. The CEIP must be on District forms ('CER', 'SIC', "LOC", 'DFD', and 'EQM') or forms approved by the District. Preparation of the CEIP shall be performed pursuant to the procedure found in the most recent *Emission Inventory Criteria and*

Guidelines for the Air Toxics 'Hot Spots' Program as adopted by CARB. Copies of the District Forms are in Appendix "A". Sample of completed forms 'DFD' and 'EQM' are in Appendix "C". Copies of the CARB documents are available at the CARB website (See "References") or from the District upon request.

Preparing the Comprehensive Emission Inventory Report (CEIR)

The CEIR shall be prepared in accordance with the procedures found in the following:

(a) *Emission Inventory Procedural Manual Volume I – Inventory Development Process;* and
(b) *Emission Inventory Criteria and Guidelines for the Air Toxics 'Hot Spots' Program*.

The CEIR shall be in format that can be 'Imported' into the HARP computer program. District forms 'CER' and 'LOC-ESN' must be included with each CEIR submittal. Copies of the above referenced documents and the HARP program may be obtained at the CARB website (See "References") or from the District upon request.

SCHEDULE

General

All existing stationary sources of air pollutants are required to submit CEIP and CEIR upon a schedule established by the District. This schedule is determined by the facility type based on the applicable SIC code and is set forth in the Third Year Cycle provisions below. Please note that a new or updated CEIP and CEIR will be required for new or modified Facilities or Emission Units in conjunction with the application for construction or modification. Such new or updated CEIP/CEIR will not exempt a Facility from submitting its next regularly scheduled submission under the Three Year Cycle.

Application CEIP/CEIR Submissions

New or modified Facilities or Emissions Units are required to submit a CEIP and CEIR with the application for construction or modification. For existing Facilities with a current CEIP and CEIR, which has been approved by and is on file with the District, the application submission may be in the form of an update. Such update shall be prepared in the same manner, using the same CEIP and only needs to include the emissions (or proposed emissions) from any new, or modified Emission Units. The CEIR will also need to indicate which, if any, existing Emissions Units have or will be removed from service or which have modified emissions. Industrywide Sources (retail gasoline facilities, dry cleaners, auto body shop and print shops, etc.) are only required to complete and submit the appropriate form or forms when requested by the District. The District reserves the right, upon written notice to the applicant, to require a complete CEIP and CEIR submission with any application.

Please note, new or modified Facilities or Emissions Units may be required to submit an additional CEIP and CEIR in a time period of less than three years from the date of their application if they belong to a source category which is required to submit a CEIP and CEIR in a particular year. For example: a wood coater submits an application for a modification that includes a CEIP and CEIR in 2003. Such a wood coater would be required to submit a revised CEIP for calendar year 2004 by April 1, 2005 and updated CEIR for calendar 2004 by July 15, 2005 and every three years thereafter.

Third Year Cycle (Calendar year for CEIP & CEIR)

GROUP	FACILITY TYPE	SIC
'A' - 2003, 2006, 2009 etc.		
	Metal Mining	10xx
	Nonmetallic Mining	14xx
	Cement Plants	3241
	Transportation, Mfg	37xx
	Railroads	4013
	Transportation Facilities	42xx
	Airports	45xx
	Landfills	4952
	Auto Body Shops (IW) *	55xx, 75xx, etc.
'B' - 2004, 2007, 2010 etc.		
	Wood Coaters	24xx & 25xx
	Printers (IW) *	27xx
	Chemical Plants	28xx
	Asphalt Plants	2951
	Composite Fibers	30xx, & 3732 (fiberglass)
	Glass Plants:	3211 & 32xx
	Concrete Plants	327x & 1771
	Mineral Plants	3295
	Machinery Mfg.	35xx
	Governmental	91xx, 95xx, & 96xx
	Prisons	92xx
	National Security	9711
	Degreasers	All
'C'- 2005, 2008, 2011 etc.		
	Agriculture	01xx, & 35xx
	Asbestos Abatement	1742
	Metal Processing	33xx
	Metal Fabricators	344x
	Electrical Equip	36xx
	Miscellaneous Mfg.	39xx

GROUP	FACILITY TYPE	SIC
'C'- 2005, 2008, 2011 etc. continued		
	Pipelines	46xx, 492x, & 4941
	Tele Communications	48xx
	Power Plants	491x, & 4339
	Waste Water Treatment	4952, & 9511
	Irrigation Systems	4971
	Petroleum Distribution	5171
	Crematories	7261
	Hospitals	80xx
	Schools	82xx
	Others	All Other

Annual Cycle

FACILITY TYPE	SIC
Dry Cleaners (IW) *	721x
Fuel Dispensing (IW) *	5541 & 4581

Annual Time Table for Submissions

The following is the standard schedule for submission of Questionnaires, CEIP and CEIR documents to the District. However, the District reserves the right to require submission of Questionnaires, CEIP and CEIR documents on a different time schedule to meet the needs of the District. Facilities will be notified in writing if an alternative time schedule for submissions will be used.

February 23	District mails "CEIP & CEIR Packet"
April 19	"CEIP" due to the District
July 15	"CEIR" due to the District
September 15	"CEIR" due to CARB

Previous Inventory Data

The District has copies of the previously submitted emissions inventory data for many facilities in HARP format. Such data is available in electronic format for 'Importing' into CEIDAR 2.5 or printout (hardcopy) format from the District upon request.

REFERENCES

Many of the documents referenced in these Guidelines may be found on the Internet. The following listed documents may be downloaded or read at the following locations:

Proposed Consolidated Emissions Reporting Rule (65 FR 33268, 5/23/200)
www.epa.gov/ttn/atw/cerr/cerrpg.html

California Clean Air Act (Health & Safety Code §§39000 et seq.)
www.arb.ca.gov/bluebook/bluebook.htm

MDAQMD Rule & Regulations
http://mdaqmd.ca.gov/MD_Rules/TableOfContents.htm

California Air Toxics Program
http://www.arb.ca.gov/toxics/toxics.htm
http://www.arb.ca.gov/toxics/id.htm
http://www.arb.ca.gov/toxics/control.htm
http://www.arb.ca.gov/ab2588/ab2588.htm

Emission Inventory Criteria and Guidelines for the Air Toxics "Hot Spots" Program
www.arb.ca.gov/ab2588/2588guid.htm

ATCM Standards
http://www.arb.ca.gov/toxics/atcm/atcm.htm

MACT Standards
www.epa.gov/ttn/atw/eparules.html

MACT & NESHAPS	http://www.epa.gov/ttn/atw/mactfnlalph.html
Implementation/Compliance Assistance Tools	http://www.epa.gov/ttn/atw/macttools.html
10-Yr MACT Promulgation Dates – Tentative	http://www.epa.gov/ttn/atw/mactprop.html

List of Pollutants under 42 U.S.C. §7412
www.epa.gov/ttn/atw/188polls.html
www.gpoaccess.gov/uscode/index.html

HARP
http://www.arb.ca.gov/toxics/harp/harp.htm

Emission Inventory Methods

www.arb.ca.gov/emisinv/areasrc/index0.htm
www.epa.gov/ttn/chief/
www.epa.gov/ttn/chief/eiip/

Technical Documents http://www.epa.gov/ttn/chief/eiip/techreport/index.html
Point Sources http://www.epa.gov/ttn/chief/eiip/techreport/volume02/index.html
$PM_{2.5}$ Inventory http://www.epa.gov/ttn/chief/eiip/pm25inventory/
US Air Force
http://www.afcee.brooks.af.mil/eq/air/caatoolbox/html/federal/emisest/emisest_top.html

Emission Inventory Training

http://www.epa.gov/ttn/chief/eidocs/training.html

Emission Factors

CHIEF http://www.epa.gov/ttn/chief/index.html
AP-42 www.epa.gov/ttn/chief/ap42/index.html
California Air Toxic Emission Factors (CATEF) www.arb.ca.gov/emisinv/catef/catef.htm
San Diego APCD http://www.sdapcd.co.san-diego.ca.us/emission/emission.htm
Ventura Co. APCD http://www.vcapcd.org/pubs/Engineering/AirToxics/combem.pdf
South Coast AQMD http://www.aqmd.gov/aer/aer.html

Standard Industrial Classification (SIC)

http://www.osha.gov/oshstats/sicser.html

Source Classification Code (SCC)

http://www.epa.gov/ttn/chief/codes/index.html#scc

Universal Transverse Mercator (UTM)

Definition http://mac.usgs.gov/mac/isb/pubs/factsheets/fs07701.html

Maps http://www.usgs.gov
http://store.usgs.gov/
http://rockyweb.cr.usgs.gov/acis-bin/querypartner.cgi

Maps/Photos http://mapping.usgs.gov/partners/viewonline.html
http://terraserver.microsoft.com/

APPENDIXES

Appendix "A" -- Forms

Appendix "B" -- Source Specific Forms

Appendix "C" -- Sample Forms

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Appendix "I" -- Number of Employees

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Appendix "K" -- Quality Assurance

All forms, worksheets, and lists are available electronically, in Excel format, from the District upon request.
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Appendix "A" - Forms

(Available electronically, in Excel format, from the District upon request)

A. CEIP Forms

1. Certification (CER)
2. Standard Industrial Classification (SIC)
3. Location of Facility (LOC)
4. Device Flow Diagram & Information (DFD)
5. Emission Quantification Method (EQM)

B. CEIR Forms

1. Certification (CER)
2. Location of Emission Sources (LOC-ES)
3. Distance to Receptors (DIS)
4. Growth Estimate Update (GEU)
5. Emission Inventory Check List (CKL) [Form used by District when review a CEIR]

Appendix "B" – Source Specific Form

(For facilities that only have this specific emission sources.)
(Available electronically, in Excel format, from the District upon request)

1. Surface Coating & Solvent Cleaning Operations
   - A. Coating Operations (CO-OPS) -- (In Word 2000)
   - B. VOC and Solids Calculation Form (VOC & S)
   - C. VOC and Solids Calculation Form Instructions -- (In Word 2000)
   - D. Toxic Substances Emission calculation Worksheet (TOX-CAL)

2. Fiberglass (Styrene) Operations
   - A. Reinforced Plastic Composites (Fiberglass) Fabricator (RPC-O)
   - B. Boat Reinforced Plastic Composites (Fiberglass) Fabricator (BRPC-O)

3. Dry Cleaners (Underdevelopment)

4. Gasoline Dispensing Facilities
   - A. Gasoline Dispensing Facility Form (GDF)
   - B. Gasoline Dispensing Facility Instruction
   - C. Gasoline Dispensing Facility Diagram

5. Fuel Combustion Equipment
   - A. Stationary Fuel Combustion Equipment Side I (SFC)
   - B. Stationary Fuel Combustion Equipment Side II (SFC)
   - C. Mobile Fuel Burning Equipment (MFB)

6. Abrasive Cleaning
   - A. Abrasive Blasting (AB)

7. Mineral Extraction (Mines & Quarries)
   - A. Emission Worksheet – Mining Operations (MINE)
     (First worksheet only. Remainder worksheet only available upon request and in Excel format.)

Appendix "C" – Sample Forms

(Available electronically, in Excel format, from the District upon request)

1. Paint Spray Booth
   - A. DFD
   - B. EQM for Process #1 - coating used and there emissions
   - C. EQM for Process #2 – natural gas used by incinerator and its emissions

2. Reciprocating Internal Combustion Engine
   - A. DFD
   - B. EQM for Process #1 – Diesel fuel burned and the related emissions

3. Crushing and Screening Operation
   - A. DFD
   - B. Flow Diagram
   - C. EQM
   - D. Emission Worksheet – Particulate Emissions form Aggregate Processing

Appendix "D" – District Default Emissions Factors

(Available electronically, in Excel format, from the District upon request)

1. Methods for Determining Emission Factors -- (In Word 2000)
2. Default Emission Factors for Boilers (Draft)
3. Default Emission Factors for Internal Combustion Engines (Draft)
4. Default Emission Factors for Mobile Equipment (Draft)
5. Default Emission Factors for Space Heaters (Draft)
6. Default Emission factors for Desert Soils
7. Default Emission Factors for Gasoline Dispensing

Appendix "E" – Emissions Inventory Worksheets

(Only available electronically, in Excel format, from the District upon request)

1. Fugitive Emissions from Mines & Quarries (Being revised)
2. Gasoline Dispensing Facility
3. Internal Combustion Engines (Under development)
4. Stationary Fuel Burning Equipment (Under development)
5. Mobile Fuel Burning Equipment (Under development)
6 Dry Cleaners

Appendix "F" – List of Toxic Substances

(Only available electronically, in Excel format, from the District upon request)

A. California List of Toxics Substances

1. Appendix A-I Substances for which emissions must be quantified
2. Appendix A-II Substances for which production, use or otherwise present must be reported
3. Appendix A-III Substances for which emission must be quantified if manufactured by the facility

B. Federal List of HAPs

1. Reference email to STAPPA/ALAPCO from USEPA drafted by Roy Smith.

Draft

POM (total)	Diethanolamine	Methylene diphenyl diisocyanate
Acetaldehyde	3,3'-Dimethoxybenzidine	4,4'-Methylenedianiline
Acetamide	p-Dimethylaminoazobenzene	Naphthalene
Acetonitrile	3,3'-Dimethylbenzidine	Nickel
Acrolein	Dimethyl formamide	Nitrobenzene
Acrylamide	2,4-Dinitrotoluene	2-Nitropropane
Acrylic acid	1,4-Dioxane	Nitrosodimethylamine
Acrylonitrile	1,2-Diphenylhydrazine	N-Nitrosomorpholine
Allyl chloride	Epichlorohydrin	PCB Group
Aniline	1,2-Epoxybutane	Pentachloronitrobenzene
Antimony	Ethyl acrylate	Pentachlorophenol
Arsenic	Ethyl benzene	0Phenol
Arsine	Ethyl carbamate	Phosgene
Benzene	Ethyl chloride	Phosphine
Benzidine	Ethylene dibromide	Phosphorus, white
Benzotrichloride	Ethylene dichloride	Phthalic anhydride
Benzyl chloride	Ethylene glycol	1,3-Propane sultone
Beryllium	Ethylene oxide	Propylene dichloride
Bis(2-ethylhexyl)phthalate	Ethylene thiourea	Propylene oxide
Bis(chloromethyl)ether	Ethylidene dichloride	Quinoline
Bromoform	Formaldehyde	Selenium
1,3-Butadiene	Glycol ether group	Styrene
Cadmium	Hexachlorobenzene	Styrene oxide
Captan	Hexachlorobutadiene	1,1,2,2-Tetrachloroethane
Carbon disulfide	Hexachlorocyclopentadiene	Tetrachloroethene
Carbon tetrachloride	Hexachloroethane	Titanium tetrachloride
Chlordane	Hexamethylene-1,6-diisocyanate	Toluene
Chlorine	n-Hexane	2,4-Toluene diamine
2-Chloroacetophenone	Hydrazine	2,4-Toluene diisocyanate
Chlorobenzene	Hydrochloric acid	o-Toluidine
Chlorobenzilate	Hydrofluoric acid	Toxaphene
Chloroform	Isophorone	1,2,4-Trichlorobenzene

Chloroprene	Lead	1,1,2-Trichloroethane
Chromium VI	Lindane group	1,1,1-Trichloroethane
Cobalt	Maleic anhydride	Trichloroethylene
Coke Oven Emissions	Manganese	2,4,6-Trichlorophenol
Cresols (mixed)	Mercury	Triethylamine
Cumene	Methanol	Trifluralin
Cyanide	Methyl bromide	Vinyl acetate
DDE	Methyl chloride	Vinyl bromide
1,2-Dibromo-3-chloropropane	Methyl ethyl ketone	Vinyl chloride
p-Dichlorobenzene	Methyl isobutyl ketone	Vinylidene chloride
3,3'-Dichlorobenzidine	Methyl isocyanate	Xylenes (mixed)
Dichloroethyl ether	Methyl methacrylate	
1,3-dichloropropene	Methyl tert-butyl ether	
Dichlorvos	4,4'-Methylene bis(2-chloroaniline)	
Diesel	Methylene chloride	

Appendix "G" - Universal Transverse Mercator (UTM)

Definition

The National Imagery and Mapping Agency (NIMA) (http://www.nima.mil/) (formerly the Defense Mapping Agency) adopted a special grid for military use throughout the world called the Universal Transverse Mercator (UTM) grid. In this grid, the world is divided into 60 north-south zones, each covering a strip 6° wide in longitude. These zones are numbered consecutively beginning with Zone 1, between 180° and 174° west longitude, and progressing eastward to Zone 60, between 174° and 180° east longitude. Thus, the contiguous 48 States are covered by 10 zones, from Zone 10 on the west coast through Zone 19 in New England. In each zone, coordinates are measured north and east in meters. (One meter equals 39.37 inches, or slightly more than 1 yard.) The northing values are measured continuously from zero at the Equator, in a northerly direction. Southerly values are similarly measured from the Equator, south. A central meridian through the middle of each 6° zone is assigned an easting value of 500,000 meters. Grid values to the west of this central meridian are less than 500,000 and to the east, are more than 500,000.

Virtually all NIMA-produced topographic maps and many aeronautical charts show the UTM grid lines.

For more detail go to the following website:

http://mac.usgs.gov/mac/isb/pubs/factsheets/fs07701.html

Maps

Universal Transverse Mercator (UTM) Coordinates can be found on topographic maps prepared and supplied by the United States Geological Service (USGS). The USGS website is as follows:

http://www.usgs.gov

USGS maps can be purchased from dealers. The following is the USGS list of California dealers:

http://store.usgs.gov/

Maps on the Web

Topographic maps can be found on the following websites:

http://mapping.usgs.gov/partners/viewonline.html

The District uses the following website to find UTM Coordinates:

http://terraserver.microsoft.com/

The following are the steps taken to locate a given facility:

1. In the window below the words "Find a specific place" enter the name of your location and click on "*go*". Example: enter 'Victorville, CA'

2. If "Find Results" gives more that one map to choose from, pick the appropriate map. Choose either "Aerial Photography" or "Topo Map". In most cases the "Aerial Photography" is newer than the "Topo Map". However, it maybe easier to locate site on "Topo Map" and then switch to "Aerial Photo" by clicking on the box to the right of "View."

3. Use 'arrows' on the outside of the 'image' to place the desired facility onto the screen.

4. To center the desired point click on the point desired.

5. To change the size of image click on "Image Size". The three choices are 'small', 'medium' and 'large'.

6. If image is too large for the screen use either or both of the vertical and/or horizontal bars and/or side and bottom arrows to move around the 'image'.

7. To zoom in either click on desired feature or on the '+' sign located at the top left edge of the image. Zoom in as close as possible.

8. Click on 'Printer' Icon.

9. To add the coordinate grid click on "Show Grid Lines".

10. To print, click on "Sent To Printer".

The attached example is for Victorville. The UTM coordinates are in meters and the UTM grids are 400 meters apart. The inventory system ask for facility UTM Coordinates in tenth (xxx.x) of Kilometers and stack UTM Coordinates in thousandths (xxx.xxx) of a Kilometer. Therefore, divide meters by 1,000 to obtain Kilometers. For this example the distance between the grids are about 5.3 millimeters apart. The coordinates of each point is as follows:

Intersection of I-15 & 7th Street

East Coordinate
(470,000 + 4.8 / 5.3 * 400) / 1,000 = 470.362 E
North Coordinate
(3,818,400 + 1.3 / 5.3 *400) / 1,000 = 3818.498 N

Intersection of 7th Street & Greentree Blvd

East Coordinate
(470,400 + 2.4 / 5.3 * 400) / 1,000 = 470.581 E
North Coordinate
(3,818,400 + 3.0 / 5.3 * 400) / 1,000 = 3818.626 N

Appendix "H" – SIC & SCC

SIC – Standard Industrial Classification

The 'Standard Industrial Classification' (SIC) system was developed by the U.S. Department of Labor. The Department of Labor keeps the SICs in both hard copy and on the web. The web address is as follows:

http://www.osha.gov/oshstats/sicser.html

To assist facilities in determining the Facility and Process SIC the District had prepared Form 'SIC', see Appendix "A". Form 'SIC' provides two methods for determining the SIC Code. Use only one of these two methods. Method I requires the use of the Internet, see page H-2. Method II allows the facility to determine the first 2-digits of their 4-digit code. To determine the first 2-digits a facility must determine its "Division" (a letter between 'A' and 'J') and "Major Group" see pages H-3 through H-4. Next the facility must prepare a written description that details the major activity or activities at its location. The District will use the 'Division', 'Major Group' and detail description to determine the last 2-digits of the 4-digit SIC Code.

The Process SIC may be different than the Facility SIC. The Facility SIC should be for the major operation of the facility and the Process SIC should match the process. An example is a military facility where the Facility SIC is 9711, 'National Security' and the Process SIC for emission units at the hospital would be 8062, 'General Medical and Surgical Hospital'.

SCC – Source Classification Code

The U.S. Environmental Protection Agency (USEPA) developed the Source Classification Code (SCC) system. The SCC is an eight-digit code. An eight-digit code may correspond to a particular boiler type, process heater, process vent, or fuel. A single emission point may have two or more SCCs if it uses more than one material or burns more than one type of fuel, but one SCC will describe most emission points.

The files that contain the SCC can be downloaded at the following website, see page H-5:

http://www.epa.gov/ttn/chief/codes/index.html#scc

The best format for searching for a SIC are either the Microsoft Excel Files or Microsoft Access Files. Also, download the 'SCC Readme' file. The Microsoft Excel Files and Microsoft Access Files are ZIP flies and will have to be UNZIPPED. Because of the way the USEPA describes a process it may take several searches to find the correct SCC. When using the Excel format use the worksheet entitled "SCC_APR2002_POINTsrces". The first column should read "PT". Make sure the units listed in the column entitled 'MEASURE' are the same units that are being used when reporting 'Process Rate (SCC Units/Yr)'. The best columns to search in are entitled 'SCC1_DESC', 'SCC3_DESC', 'SCC6_DESC', 'SCC8_DESC', and/or 'MATERIAL'.

Appendix "I" – Number of Employees

The total number of employees is the number of full time employees plus the number of part time employees (PTE) converted to equivalent full time employees. To convert part time employees into equivalent full time employees, divide the number of hours worked by part time employees by 2000. The equation is as follows:

NE = FTE + (PTHW / 2000)

NE = Total Number of Employees

FTE = Number of Employees that work more than 2,000 hours per calendar year

PTHW = Total Number of Hours Worked by Part Time Employees in a calendar year

Appendix "J" – HARP Instructions

DOWNLOAD

The California Air Resources Board released its new emission inventory software on December 31, 2003. The new software is called the California Emission Development and Reporting System-2.5 (CEIDARS-2.5). CEIDARS-2.5 is a part of the Hotspots Analysis Reporting Program (HARP). The new web-link for HARP is as follows:

http://www.arb.ca.gov/toxics/harp/harp.htm

This web page contains the download and installation instructions. It is advised that you print a copy of this web page. The first update for HARP was released on January 26, 2004.

The detailed "Users Manual" can be downloaded from this web page.

HARP

HARP has four (4) major parts. They are CEIDAR-2.5, Prioritization Scores, air dispersion modeling and health risk assessment (HRA). The parts are linked together to allow transfer of data from one part to another. The HRA uses the methods recently approved by Office of Environmental Health Hazard Assessment (OEHHA).

DISTRICT CEIDARS-2.5 INSTRUCTION MANUAL

The District will be preparing a shorter 'point and click' document entitled "CEIDARS Instructions". This document should be available in April 2004.

CEIDAR-2.5 FLOW DIAGRAM

CEIDARS-2.5 requires one 'Facility Record' for each facility. One 'Device Record' for each emission source or release point. There can be one to 99 'Process Records' for each 'Device Record'. There can be one to 753 'Emission Record' for each 'Process Record'. There should be one 'Stack Record' for each stack. Each stack should be linked to a 'Process Record'. 'Stack Records' are optional. See the following for a flow diagram.

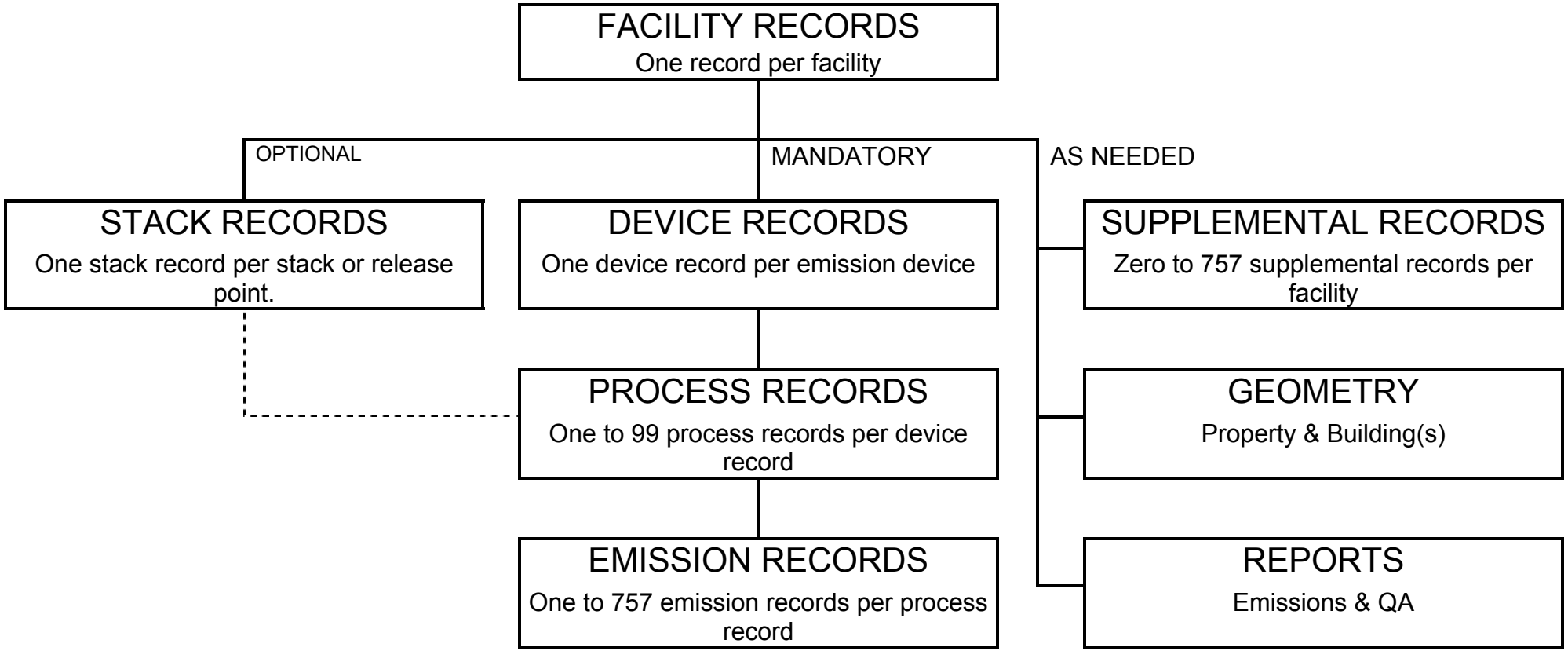
IMPORTING DATA INTO HARP

Instruction on how to 'Import' District provided emission data follows.

EXPORTING DATA FROM HARP

Instruction on to 'Export' data to the District follows.

CEIDARS2.5 FLOW DIAGRAM



IMPORTING DATA

SCREEN	ACTION
HARP - Reporting Year xxxx	Click on "Transactions" Click on "Import Facilities and Emissions"
Import Changes from Tran····	Click on "Import Data"
Open	If not in desired folder or drive and then click on "Look In" and go to desired drive an/or folder. Click on "file name" of the file to be imported into HARP. The file type or file name extension must be 'TRA'. Click on "Open" button
HARP	Answer "Yes" if the statement contains the correct "file name" form importing and database for year of "20xx" is correct.
Import Changes from Tran····	When file has been imported the bottom window will read, "Import completed successfully". Then click on "Exit".

HOW TO FIND IMPORTED DATA

HARP - Reporting Year xxxx	Click on "Edit Data". Click on "Facilities and Emission".

Facility Data	Facility name should appear in small window to the right of "Facility". If not, from Task Bar click on "List". The name of the desired facility name should appear in the column entitled "Facility".
Facilities	Click on the desired facility name. Click on "OK".
Facility Data	Facility name should appear in small window to the right of "Facility".

EXPORTING DATA

SCREEN	**ACTION**
HARP - Reporting Year xxxx	Click on "Transactions" Click on "Export Facilities and Emissions"
Export Changes to Trans ···	Click circle, (which will place a dot in the circle) located before the words "User Defined Facility List"
	Click button entitled "Edit List"
List Editor	Delete all facilities in window entitled "List"
	From "Available records" highlight facility to be exported by placing pointer in box to the left of the column entitled "facid" and then click left mouse button
	Click on "Insert"
	Repeat previous two steps until all facilities to be exported appear in "List"
	Click on "Exit"
HARP	Answer question with "Yes"
Export Changes to Trans ···	In Task Bar Click on "Export"
Export to file	Click on button with "up arrow" until desired folder or drive appears in large window.
	If exporting to an external disk insert the external disk into the appropriate drive, normally the "A" Drive.

	Click on desired folder or drive. The small window after "Save in:" should now contain the folder or drive name. Click on "folder" were the data is to be exported to. The small window after "Save in:" should now read "folder name". In the small window located to the right of "File name:" type in a name of the file or files being exported. Click on "Save" button
Export Changes to Trans ···	Messages will appear near the bottom starting with the word "Exporting···" When export is completed the message at the bottom should read "Exported *{number}* facilities to the *{drive}:\{folder name}\{file name}.tra"* Click on "Exit" to return to "HARP - Reporting Year" screen
HARP – Reporting Year xxxx	

HOW TO CHECK ON EXPORT DATA

DESK TOP	Double Click on location of downloaded file such as 'My Documents', or 'My Computer', or etc.
Exploring	Click on drive and/or folder until desired folder is hi-lighted Double click to open the desired file.

The inventory file will open in 'Notepad'. Each of the lines should begin with one of the following:

"CEIDARS2.5"
"FAC", ---- one line for each facility
"DEV", ---- one line for each device
"PRO", ---- one line for each process
"EMS", ---- one line for each substance emitted for each process
"STK", ---- one line for each stack.
"BLD"
"BLP"
"PRT"
"PRP"
"RSK"

The following is an example of how each line of a facility report should begin:

```
"CEIDARS25","HARP/CEIDARS 2.5 transaction file generated 2/6/2004 10:26:30 AM"
"FAC",37,3000,"SD","SD","A","DILLINGHAM DONUTS","12345 COAST BLVD","LA JOLLA
"DEV",37,3000,"SD","SD","A",1,"DONUGT DEVICE 1","
"PRO",37,3000,"SD","SD","A",1,1,"DONUGT PROCESS  1",39000701,1795,""
"EMS",37,3000,"SD","SD","A",1,1,1016,1,,,,1,,,0,10,0.001,,,,,,"","","","","rtw
"STK",37,3000,"SD","SD","A",1,"FIRST STACK",30,5,200,1178,60,"U11","NAD27",
"BLD",37,3000,"SD","SD","A",1,1,"",10,3,4,"N","rtw",20040206
"BLP",37,3000,"SD","SD","A",1,1,1,1,0,0,"rtw",20040206
"BLP",37,3000,"SD","SD","A",1,1,2,2,20,0,"rtw",20040206
"BLP",37,3000,"SD","SD","A",1,1,4,4,20,25,"rtw",20040206
"PRT",37,3000,"SD","SD","A",1,"",5,"N","rtw",20040206
"PRP",37,3000,"SD","SD","A",1,1,1,-30,-30,0,"rtw",20040206
"PRP",37,3000,"SD","SD","A",1,2,2,30,-30,0,"rtw",20040206
"PRP",37,3000,"SD","SD","A",1,3,3,30,30,0,"rtw",20040206
"PRP",37,3000,"SD","SD","A",1,4,4,0,30,0,"rtw",20040206
"PRP",37,3000,"SD","SD","A",1,5,5,-30,0,0,"rtw",20040206
"RSK",37,3000,"SD","SD","A","","",,,"",,,1.026419E-04,56.1,7.894737,7.894737,
```

Appendix "K" - Quality Assurance

The District and CARB uses the Quality Assurance (Q/A) Report feature of HARP to check for the consistency and completeness of the data. The Q/A Report feature is found by clicking on 'Reports'. There are eight quality assurance reports. Click on the desired report or reports you want. Missing, inconsistent, and uncompleted data will be flagged. If all the data for a given Q/A Report passes all the checks, the report(s) will be blank. The goal is to have all reports blank. However, this is not possible for all situations because of the limitations of the program. When this occurs, a note explaining why the flag still exist should be placed on the report. Submit final Q/A Report as either a file on the inventory disk or in hardcopy.

The number or numbers at the right end of each line of flagged data identifies the reason for being flagged. The explanation for each number can be found in the upper left of the report.

The eight Q/A Reports and their function are as follows:

1.	Facility without emissions	The database does not have any 'Emission Records' for the listed 'Facility Record'.
2.	Stacks without emissions	The database does not have any 'Emission Records' for the listed 'Stack records'. Each 'Stack Record' should be linked to a 'Process Record'.
3.	Devices without emissions	The database does not have any 'Emission Records' for the listed 'Device Records'.
4.	Processes without emissions	The database does not have any 'Emission Records' for the listed 'Process Records'.
5.	Stacks without processes	The database does not have any 'Process Records' for the listed 'Stack Records'.
6.	Emission Data Q/A	This Q/A report checks the 'Emission Records' for the following five items: A. Control efficiency is too high B. Process rate shown but operating schedule is zero (or vice versa) C. Annual emissions are zero (0) and process rate is not equal to zero (or vice versa)

D. Calculated emission is not within 105 of reported (inputted) annual emission
E. SCC has been deleted by EPA.

7. Stack Data Q/A

This Q/A report checks the "Stack Records' for the following nine items:

A. UTM Coordinates are incomplete for the stack and/or facility
B. UTM Coordinates are out of expected range
C. Stack height is too tall or short
D. Stack diameter is too large or small
E. Stack diameter exceeds 0.4 times the stack height
F. Stack gas velocity is too slow or fast
G. Stack temperature is out of expected range
H. Calculated stack flow rate is not within 10% of reported (inputted) flow rate
I. Stack is not attached (linked) to any 'Process Record'

8. Process and Temporal Data Q/A

This Q/A report checks the 'Process Records' for the following 8 items:

A. UTM Coordinates for the facility are incomplete or out of range
B. Annual process rate is blank or zero
C. Maximum hourly process rate is blank or zero
D. Hours per day may be invalid
E. Days per week may be invalid
F. Weeks per year may be invalid
G. Maximum hourly process rate is inconsistent with operating cycle
H. Monthly throughput is incorrect or missing.